

Today's Date: 9/26/2001

J. 14

modifications as would be obvious to one skilled in the art are intended to be included within the scope of the following claims.

What is claimed is:

1. An adhesive composition which consists essentially 5 of a main component and an activating component, said main component comprising (A) at least one of acrylic and methacrylic monomers, (B) chlorosulfonated polyethylene or a mixture of chlorinated polyethylene and a sulfonyl chloride, (C) an organic peroxide, (D) a stabilizer selected from at least one member of the group consisting of hydroquinone, hydroquinone monomethyl ether, and 2,6-di-t-butyl-4-methyl-phenol and (E) an organic tin compound selected from the group consisting of di and tri(C₁-C₁₈)alkyl or benzyl tin mono- and 15 di-aliphatic carboxylates.

2. The adhesive composition according to claim 1, of which the main component comprises at least one of said acrylic or methacrylic monomers in an amount of 40 to 70% by weight based on the weight of said main 20

component, said chlorosulfonated polyethylene or mixture of said chlorinated polyethylene and sulfonyl chloride in an amount of 2 to ½ parts by weight to one part by weight of said acrylic or methacrylic monomers, said organic peroxide in an amount of 0.01 to 10% by weight, said stabilizer in an amount of 0.01 to 10% by weight and said organic tin compound in an amount of 0.01 to 10% by weight, all based on the weight of the main component.

3. The adhesive composition according to claim 1, wherein said main component further comprises an

epoxy resin (F).

4. The adhesive composition according to claim 3, wherein said epoxy resin is present in an amount of from 0.01 to 10% by weight of said main component.

5. The adhesive composition according to claim 1, wherein said activating component comprises a activator inclusive of an accelerator for increasing the curing rate.

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DB Name	Query	Hit Count	Set Name
USPT	. 17 not 12	19	<u>L8</u>
USPT	l6 and ester[ab,ti,clm]	21	<u>L7</u>
USPT	15 and (polymer or copolymer or resin or binder)[ab,ti,clm]	46	<u>L6</u>
USPT	l4 and (water or aqueous)[ab,ti,clm]	49	<u>L5</u>
USPT	13 and ((524/\$)! CCLS.)	56	<u>L4</u>
USPT	(water or aqueous) same (polymer or copolymer or resin or binder) same (ester) same (soybean or canola or linseed or linoleic or linolic or eleostearic or licanic or parinaric or tung or sunflower or cottonseed or corn or rape) same (dispersion or emulsion or emulsify)	244	<u>L3</u>
USPT	((water or aqueous) same (polymer or copolymer or resin or binder) same (ester) same (soybean or canola or linseed or linoleic or linolic or eleostearic or licanic or parinaric or tung or sunflower or cottonseed or corn or rape))[ab,ti,clm]	23	<u>L2</u>
USPT	(water or aqueous) same (polymer or copolymer or resin or binder) and (ester) and (soybean or canola or linseed or linoleic or linolic or eleosteariclicanic or parinaric or tung or sunflower or cottonseed or corn or rape)	21968	<u>L1</u>

TABLE 1-continued

				Example						Comparative Example		
	1		2	3	4	. 5	6	. 7	- 8	9.	• ;	2
	After 5 minutes	. 29	33	45	51	32	29	38	: .30	- 53	0	5.5
	After 24 hours	230	245	280	310	215 .	201	225	233	- 290	120	132
50° C., 2W	After 5 minutes	20 .	29	33	· 47	18	15	28	24	52 * :	8th	9th ·
	After 24 hours	190	210	. 240	256	180	176	205	200	279	Day Gela-	Day Gela-
50° C., 3W	After 5 minutes	· io ·	19.	20	40	8	7.	. 12	10	40	tion	tion
	After 24 hours	155 .	195	190	210	120	115	138	120	195	_	
50° C., 4W	After 5 minutes	. 5 `	15.	10	25th	3	. 3	. 5	3	22nd `		- :
	After 24 hours	120	186	133	Day Gela- tioπ	50	55	90	75	Day Gela- tion	'	- ·

Note:

From the above results, it is understood that the addition of an organic tin compound is effective in enhancement of the storage stability.

Examples 10-11 and Comparative Examples 3-4

Butyl methacrylate (20 parts), tetrahydrofurfuryl 25 methacrylate (20 parts), ethoxyethyl methacrylate (20 parts), ethylene glycol dimethacrylate (2 parts), trimethylolpropane trimethacrylate (1 part), methacrylic acid (7 parts), chlorosulfonated polyethylene (40 parts), cumene hydroperoxide (1 part) and BHT (1.5 parts) 30 were mixed together. To the resultant mixture, dibutyl tin maleate and "Epikote 828" were added to make a main component composition. The main component composition was subjected to test for accelerated storage stability. The results are shown in Table 2.

TABLE 2

	IVDL	- Z	·	
	Exar	nple		mparative Example
	.10	11	3	4 .
Dibutyl tin maleate Epikote 828	1 4	1.	. =	
Initial After 5 minutes	90	89	. 75	77

TABLE 2-continued

		Ex	ample	Comparative Example				
		10	11	3	4			
2W	After 24 hours	203.	210	Gelation	Gelation			
50° C.,	After 5 minutes	60	75	<u> </u>	_			
3W .	After 24 hours	190	195	·	·			
50° C.,	After 5 minutes	15	70					
4W	After 24 hours	110	180		_			

Examples 12-16 and Comparative Example 5

Methyl methacrylate (20 parts), 2-ethylhexyl methacrylate (10 parts), tetrahydrofurfuryl methacrylate (30 parts), ethylene glycol dimethacrylate (2 parts), trimethylolpropane trimethacrylate (1 part) and methacrylic acid (5 parts) were mixed together. To the resultant mixture (68 parts), chlorosulfonated polyethylene, cumene hydroperoxide, BHT, an organic tin compound and "Epikote 828" or "Epikote 815" were added to make a main component composition. The main component composition was subjected to test for accelerated storage stability. The results are shown in Table 3.

TABLE 3

		-	Compara- tive Example				
	<u> </u>	12	13	14	15	16	5
Chlorosulfo polyethylen		40	· 40	40	40	40	40
Cumene byo BHT	droperoxide	1	1	` ' <u>1</u>	1	1	1
Dibutyl tin maleate Dibutyl tin stearate		1		<u>-</u>	i	i	_
Dibutyl tin dilaurate		Ξ	,	1		_	
Epikote 828 Epikote 815		-2	. 2	2		.0.5	
Initial	After 5 minutes	89	80	77	75	78	70
50° C., 1W	After 24 hours After 5 minutes	302 88	285 79	296 72	· 279 70	290 81	295. · . 60.
	After 24 hours	290	270 .	283	288	278	205
50° C., 2W	After 5 minutes After 24 hours	. 77 232	69 . 229	70 262	66 230	77 243	10th Day Gelation
50° C., 3W	After 5 minutes	60	59	66	61	62	
50° C., 4W	After 24 hours After 5 minutes	205 45	192 40	198 38	187 45	190 32	_
	After 24 hours	125	138 .	115	122	109	[*] .

After 24 hours 232 215 220 215 50° C., After 5 minutes 82 90 10 25. 1W After 24 hours 212 230 135 155 50° C. After 5 minutes 70 78 9th Day 10th Day The invention being thus described, it will be obvious that the same may be varied in many ways. Such variations are not to be regarded as a departure from the spirit and scope of the present invention, and all such

Chlorosulfonated polyethylene having a chlorine content of 29% and a sulfur content of 1.4% and a Mooney viscosity of 30 was used.

A mixture of chlorinated polyethylene having a chlorine content of 44% and prepared from polyethylene having a melt index of 150 and diphenyl ether 4.4 disulfonyl chloride in a weight ratio of 10:1 was used.